MINUTES

INSTALLATION RESTORATION PROGRAM

RESTORATION ADVISORY BOARD MEETING

ABERDEEN PROVING GROUND, MARYLAND

THURSDAY, 27 MARCH 2003

7:00 p.m. – 10:45 p.m.

EDGEWOOD SENIOR CENTER

RESTORATION ADVISORY BOARD MEMBERS PRESENT AT THIS MEETING:

Dr. Nasrin Begum
Ms. Glenda Bowling
Mr. Gary Browning (Alternate for Mr. Kevin Barnaba)
Mr. Arlen Crabb
Mr. Roy Dietz
Ms. Mandi Elliott-Bird
Ms. Christine Grochowski (Community Co-Chair)
Mr. Ted Henry
Mr. Greg Kappler
Mr. Karl Kalbacher (Maryland Department of the Environment)
Ms. Mary Moses (Harford County Emergency Operations Center)
Mr. Thomas McWilliams, Jr.
Mr. Ken Stachiw (Army Co-Chair)
Mr. Frank Vavra (U.S. Environmental Protection Agency)
Mr. Dennis Warwick
Ms. Ruth Ann Young

RESTORATION ADVISORY BOARD MEMBERS NOT PRESENT AT THIS MEETING:

Ms. Loretta McCullah
Mr. Dan Pazdersky

ENCLOSURES TO THESE MINUTES:

1: Roster of Meeting Attendees
2: Agenda
3: April 2003 Calendar of Events
4: Unexploded Ordnance (UXO) Incident Reports
5: J-Field Study Area Update Presentation Materials
6: Canal Creek Study Area Update Presentation Materials

I. EXECUTIVE SUMMARY

Administrative Comments

Mr. Ken Stachiw (Chief, Directorate of Safety, Health and Environment (DSHE) Environmental Conservation and Restoration Division (ECRD)) informed the RAB Members that the tour of APG was successful. The annual RAB budget meeting will be scheduled during March 2003. Ms. Christine Grochowski (Community Co-Chair, RAB Member) informed the RAB Members that the Aberdeen Proving Ground Superfund Citizens Coalition (APGSCC) and the Technical Assistance Grant (TAG) consultant would not renew their grant. Ms. Grochowski suggested that the 24 April 2003 RAB Meeting be rescheduled for 1 May 2003. RAB Members were encouraged to contact Mr. Stachiw or Ms. Katrina Harris (General Physics Corporation) with their preference of dates.

Lauderick Creek Chemical Warfare Materiel (CWM) Removal Action Update

Mr. Roger Walton (U.S. Army Corps of Engineers (USACE) Environmental Remediation Resident Office (ERRO)) provided an update regarding the Lauderick Creek CWM Removal Action. A total of 15,837 anomalies have been identified, with 336 anomalies identified since the 6 March 2003 RAB meeting. Three Livens, and eight 4.2" mortars were investigated since the 6 March RAB meeting. A total of 519 grids have been completed, with 6 grids completed since the 6 March 2003 RAB meeting. An updated Summary of Liquid Filled Munitions from the Lauderick Creek CWM Removal Action project was provided. Several items are awaiting destruction and four liquid filled munitions are awaiting assessment.

Perchlorate Detection Update

Mr. Stachiw provided an update on the perchlorate detections. Samples from the Harford County Production wells were sent to Severn Trent Laboratories, Inc. Using a detection limit of 0.6 ppb, Severn Trent Laboratories were able to verify perchlorate's presence in the wells. Mr. Stachiw informed RAB Members that a meeting to discuss the issue will take place within the first or second week of April 2003.

J-Field Study Area Update

Mr. John Wrobel (DSHE ECRD Project Officer) provided an update on the J-Field Study Area. Completed activities include: the protective soil blanket (PSB) construction, the Technical Impracticability (TI) waiver for the surficial aquifer, and the September 2001 overall Record of Decision (ROD). All requirements from the 1996 ROD as amended by the 2000 Explanation of Significant Differences (ESD) have been fulfilled. In September 2001, the draft Long Term Monitoring/Operations and Maintenance (LTM/O&M) Plan was developed for the J-Field Overall ROD. The Land Use Control Implementation Plan (LUCIP), an attachment to the LTM/O&M Plan, is currently under regulatory review. Surficial aquifer groundwater use and untreated upper Confined Aquifer (CA) groundwater use are restricted unless all applicable standards and criteria are met. Unauthorized excavation and well installation are also prohibited.

The draft Remedial Action Closure (RAC) Report for the Soil Operable Unit (SOU) at J-Field is undergoing review. SOU activities are complete and the LTM phase has begun. Upcoming document deadlines include: 30 April 2003 for the draft J-Field White Phosphorus Pits (WPP) Investigation Quality Assurance Project Plan (QAPP) and the draft J-Field WPP Investigation Field Sampling Plan/Remedial Investigation (FSP/RI) WP; 30 June 2003 for the Phase II Remedial Action, the final copy of the J-Field WPP Investigation QAPP, and the final copy of the J-Field WPP FSP/RI WP.

Free-phase DNAPL recovery is specified by the Alternative Remedial Strategy in the 2001 ROD. The Phase II Remedial Action will include implementation of a dense non-aqueous phase liquid (DNAPL) Recovery Well. The delineation and well installation plan include: cone penetrometer technology (CPT) and direct push technology (DPT) field investigations; stratigraphic and plume geospatial modeling; well installation; and DNAPL recovery. A field investigation using CPT to locate hydrostratigraphic units (low permeability silt and clay layers) that inhibit the migration of DNAPL was completed. CPT and historical data were integrated to construct a 3-Dimensional model of the sand and silt/clay units beneath the site. This model was then used to determine the most likely areas for the accumulation of DNAPL and identify target locations for DPT sampling.

The WPP were used between late 1940-90 for open burn/open detonation (OB/OD). Soil and groundwater sampling for the 1994 RI detected low levels of metals and semivolatiles in the soil, and trichloroethylene (TCE) in the groundwater. Potential concern regarding past site uses resulted in the WPP being transferred into the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program for further investigation and remediation. The draft proposed field sampling plan for each environmental media includes: 20 surface water samples; 108 groundwater samples; 90 soil samples; 250 borings samples; and 54 sediment samples.

Canal Creek Study Area

Mr. Wrobel provided an update on the East Branch Canal Creek area. The groundwater treatment plant (GWTP) is designed so that the treated water will be drinking water quality. The plant has the capacity to treat about 440,000 gallons of water per day. The long-term goal is to incorporate the GWTP effluent as part of the Edgewood Area drinking water system. Through the Army's Sustainable Project Rating Tool (SpiRiT) Project, the Canal Creek GWTP is eligible for gold certification. The GWTP's gold certification features include: environmental responsibility in construction; the adaptive re-use of an existing building incorporated in the sustainable design principles established by the Department of Defense (DOD) and the General Services Administration (GSA); and the demonstrated environmentally and fiscally responsible use of resources in design, construction, and operations. Mr. Wrobel anticipates a start date of April 7, 2003.

Operations Security (OPSEC) Procedures Discussion

Mr. Ted Henry (RAB Member) requested that the RAB Members read and comment on the proposal for maintaining National Security and Environmental Restoration at APG before the 25 April 2003 RAB meeting. Ms. Glenda Bowling (APGSCC) announced to the RAB Members that APGSCC couldn't agree to the proposal, but that they can still discuss the proposal.

Mr. Joe Kaffl (OPSEC) provided copies of the Essential Elements of Friendly Information (EEFI). The document is a tool used to determine if documents are releasable to the public. Written by Mr. Kaffl, the first section is a memo describing the OPSEC program and its philosophy. The remaining sections consist of a series of questions to define what information is classified or unclassified. The RAB Members reviewed the EEFI and discussed related issues with Mr. Kaffl. Upon conclusion, the RAB Members were asked to develop a list of important objects considered necessary on a map to allow the Members to review and understand the information presented. Mr. Kaffl collected the EEFI review copies at the conclusion of the meeting.

II. OPENING REMARKS AND ADMINISTRATIVE COMMENTS

The March 2003 U.S. Army Garrison Aberdeen Proving Ground (APG) Installation Restoration Program (IRP) Restoration Advisory Board (RAB) meeting was called to order by Mr. Kenneth Stachiw (Chief, Directorate of Safety, Health and Environment (DSHE) Environmental Conservation and Restoration Division (ECRD); Army Co-Chair) at 7:00 p.m. on Thursday, 27 March 2003. The meeting took place at the Edgewood Senior Center located at 1000 Gateway Road in Edgewood, Maryland.

Enclosure 1 to these minutes is a meeting attendance list. RAB Members in attendance received an agenda (Enclosure 2), a RAB calendar of events for April 2003 (Enclosure 3), Unexploded Ordnance (UXO) Incident Reports (Enclosure 4), a copy of the J-Field Study Area Update presentation (Enclosure 5), and a copy of the Canal Creek Study Area Update presentation (Enclosure 6).

Mr. Stachiw informed the RAB Members that the tour of APG was successful. The annual RAB budget meeting will be scheduled during March 2003. Mr. Stachiw reported no difficulties with receiving funding to date. In October a meeting will take place to discuss the fund disbursement for the upcoming five fiscal years. Mr. Stachiw encouraged feedback from the RAB Members regarding views on funding priorities.

Ms. Christine Grochowski (Community Co-Chair, RAB Member) informed the RAB Members that the Aberdeen Proving Ground Superfund Citizens Coalition (APGSCC) and the Technical Assistance Grant (TAG) consultant will not renew their grant.

Ms. Grochowski suggested that the 24 April 2003 RAB Meeting be rescheduled for 1 May 2003. RAB Members were encouraged to contact Mr. Stachiw or Ms. Katrina Harris (General Physics Corporation) with a preference for the meeting date.

After confirming the RAB Members had no further comments, Mr. Stachiw introduced Mr. Roger Walton (U.S. Army Corps of Engineers (USACE) Environmental Remediation Resident Office (ERRO)) to provide the Lauderick Creek Chemical Warfare Materiel (CWM) Removal Action Update.

III. LAUDERICK CREEK CWM REMOVAL ACTION UPDATE

Mr. Walton provided an update regarding the Lauderick Creek CWM Removal Action. A total of 15,837 anomalies have been identified, with 336 anomalies identified since the 6 March 2003 RAB meeting. Three Livens, and eight 4.2" mortars were investigated since the 6 March RAB meeting. A total of 519 grids have been completed, with 6 grids completed since the 6 March 2003 RAB meeting. Dr. Cal Baier-Anderson (University of Maryland, TAG Consultant) requested a detailed, color-coded grid showing the number of rounds removed during the Removal Action.

An updated Summary of Liquid Filled Munitions from the Lauderick Creek CWM Removal Action project was provided. Several items are awaiting destruction and four liquid-filled munitions are awaiting assessment. Three of the munitions are 4.2" mortars, excavated on 21 October 2002, 12 March 2003, and 18 March 2003. One Livens, excavated on 19 March 2003, is awaiting assessment.

The most recent munitions were found in the southernmost portion of the Lauderick Creek Removal Action area in Grid L30. A total of 10 munitions were found in the grid. The majority of the remaining grids are partially covered by paved roads and/or buildings. With the exception of a few grids in wet areas, Mr. Walton anticipates finishing the grids in approximately 18 business days.

Mr. Arlen Crabb (RAB Member) commented that 10 munitions was a large amount to recover at the southernmost edge of the Removal Action and inquired about the possibility of extending the Removal

Action to five more grids on either side of Grid L30. Mr. Stachiw responded that funding was provided only for the current grids and expansion of the project would require permission and funding from the Department of the Army. The Lauderick Creek Removal Action boundaries were created with the intent of being one-fourth mile from the installation boundary. At one-fourth mile, Livens and chemical warfare containing munitions (i.e. phosgene), if detonated, would not reach the boundary.

Mr. Ted Henry (RAB Member) questioned how someone on the installation would know if he were in the Removal Action area. Mr. Walton explained that if personnel were deliberately looking for the grid boundaries, they are easily relocated since each grid corner is staked and every third grid corner is marked with a piece of rebar with PVC tubing around it. However, clear marking for non-personnel is not present.

Mr. Greg Kappler (RAB Member, various committees) inquired why the grids are being surveyed for UXO. Mr. Stachiw explained that by removing the UXO, the "no death zone" could be moved farther from the APG boundary. If a weapon is detonated outside of the grids, the area in which deaths may occur will not reach the boundary. Mr. Kappler questioned if open field was south of the grids. Mr. Stachiw explained that The Army National Guard conducts weekend training in the open field south of Grid L30. If an explosion occurred in the area, it is unlikely that the after affects will reach the boundary.

Mr. Henry queried if live rounds are currently used in that area. Mr. Stachiw replied that no live mortars or rounds are used outside of the safety zone currently. Live rounds will probably not be used in the area due to the proximity of the residential area.

Dr. Baier-Anderson questioned who designates an APG range as "closed." Mr. Stachiw recounted that the base commander bases his designation on the definitions passed down to him. There are few closed ranges because the base commander wants to have the range available for possible future use. Mr. Stachiw commented that he would prefer if the definition of a closed range were changed to allow more flexibility in the designation. Mr. Henry requested a listing of the closed ranges on APG.

After confirming the RAB Members had no further comments, Mr. Stachiw provided an update on the perchlorate detections.

IV. PERCHLORATE DETECTIONS UPDATE

Mr. Stachiw provided an update on the perchlorate detections. Samples from the Harford County Production wells were sent to Severn Trent Laboratories, Inc. Using a detection limit of 0.6 ppb, Severn Trent Laboratories were able to verify perchlorate's presence in the wells. Mr. Stachiw stressed the importance of having confidence in the lab's methods before further sampling takes place. With Severn Trent Laboratory's results, using a low detection limit, perchlorate and possible interferences may be better defined.

Dr. Cal Baier-Anderson inquired if sampling has occurred at off-post locations. Mr. Stachiw replied that that Harford County has completed sampling at the Clorox Company, but APG does not have access to the results. He stated that once the analytical method is confirmed, samples will be taken throughout Harford County.

Mr. Stachiw recounted that Chilean fertilizer, a perchlorate source, may have been used. Mr. Henry inquired if the fertilizer was used on farms off-post. Mr. Stachiw replied that Harford County is conducting research into the use of the fertilizer. No timeline of use has been created yet. However, the fertilizer use would explain the presence of perchlorate in Harford County wells 1 and 2, which are not

near APG. Mr. Stachiw informed RAB Members that a meeting to discuss the issue will take place within the first or second week of April 2003.

After confirming the RAB Members had no further comments, Mr. Stachiw introduced Mr. John Wrobel (DSHE ECRD Project Officer) to provide an update on the J-Field and Canal Creek Study Areas.

V. J-FIELD STUDY AREA UPDATE

Mr. Wrobel provided an update on the J-Field Study Area. Completed activities include: the protective soil blanket (PSB) construction, the Technical Impracticability (TI) waiver for the surficial aquifer, and the September 2001 overall Record of Decision (ROD). All requirements from the 1996 ROD as amended by the 2000 Explanation of Significant Differences (ESD) have been fulfilled. In September 2001, the draft Long Term Monitoring/Operations and Maintenance (LTM/O&M) Plan was developed for the J-Field Overall ROD. The Land Use Control Implementation Plan (LUCIP), an attachment to the LTM/O&M Plan, is currently under regulatory review. Surficial aquifer groundwater use and untreated Upper Confined Aquifer (UCA) groundwater use are restricted unless all applicable standards and criteria are met. Unauthorized excavation and well installation are also prohibited.

The draft Remedial Action Closure (RAC) Report for the Soil Operable Unit (SOU) at J-Field is undergoing review. SOU implementation activities are complete and the LTM phase has begun. Mr. Wrobel recounted to the RAB Members that last Earth Day 400 trees were planted in the area. Upcoming document deadlines include: 30 April 2003 for the draft J-Field White Phosphorus Pits (WPP) Investigation Quality Assurance Project Plan (QAPP) and the draft J-Field WPP Investigation Field Sampling Plan/Remedial Investigation (FSP/RI) Work Plan (WP); 30 June 2003 for the implementation of the Phase II Remedial Action, the final copy of the J-Field WPP Investigation QAPP, and the final copy of the J-Field WPP FSP/RI WP.

The Alternative Remedial Strategy in the 2001 ROD specifies free-phase DNAPL recovery. The Phase II Remedial Action will include implementation of a dense non-aqueous phase liquid (DNAPL) recovery well. By removing the high concentrations, the natural degradation processes will be accelerated. The delineation and well installation plan include: cone penetrometer technology (CPT) and direct push technology (DPT) field investigations; stratigraphic and plume geospatial modeling; well installation; and DNAPL recovery. Mr. Wrobel displayed a graphic depicting the distribution of DNAPL, mainly consisting of 1,1,2,2-Trichloroethane (1,1,2,2-TeCA), in the surficial aquifer as of July 2001. The graphic indicates that the highest concentration of 1,1,2,2-TeCA was detected near well GP-53.

A field investigation using CPT to locate hydrostratigraphic units (low permeability silt and clay layers) that inhibit the migration of DNAPL was completed. CPT and historical data were integrated to construct a 3-Dimensional model of the sand and silt/clay units beneath the site. This model was used to determine the most likely areas for the accumulation of DNAPL and identify target locations for DPT sampling. Mr. Wrobel displayed a map indicating the DPT sampling locations, spaced about 10 to 15 feet apart and at depths of less than 20 feet. The methodology for choosing DPT locations relied on the fact that the DNAPL does not mix with the water but sinks to the impermeable clay layer. Thus, placing a DPT at a low spot in the clay layer, where DNAPL can pool, will allow the DNAPL to be removed through pumping.

The DPT DNAPL sampling strategy consisted of soil samples with screened headspace for volatile organic compounds (VOCs) detection using Flame Ionization Detector (FIDs). Red Oil O Dye tests and a shake test were conducted to detect visual signs of DNAPL and emulsions. Mr. Wrobel displayed several graphics of samples before and after the dye shake test. DPT screening results from soil samples

indicated a residual DNAPL at interval depths of nine to eleven feet in the sand. This depth interval corresponded to the highest FID readings. Groundwater samples recovered 1,1,2,2-TeCA at interval depths from 18 to 22 feet in the sand. The upper sand interval was often dry.

Mr. Kappler questioned how often samples are taken when using the cone penetrometers. Mr. Wrobel stated that samples are taken every five feet. Mr. Matt McCaughey (Weston Solutions, Inc) replied that the cone penetrometers were used twice. The first time was to collect data for modeling and the second time to take samples of sand at targeted depths of 10 and 20 feet. Mr. Kappler inquired if there was concern about penetrating through the confining layer of the aquifer and allowing the DNAPL to spread. Mr. Wrobel recounted that the samples were monitored and were specific depths were targeted, so the concern is minimal.

Sixteen DPT soil locations, surrounding well GP-53, were sampled for VOCs, total organic carbon (TOC), and percent solids. Twenty groundwater samples were collected for total VOC analysis. One composite DNAPL sample was collected for VOC mass fractions, kinematic viscosity at subsurface temperature, density at subsurface temperature, vapor pressure, and interfacial tension.

Using a peristaltic pump, two DPT groundwater samples recovered free-phase DNAPL. The volume of DNAPL recovered from well JF225-1, at a depth of 18 to 22 feet below ground surface (bgs), was 0.7 liters. Well JF245-1 resulted in the recovery of 4.2 liters from a depth of 18 to 22 feet bgs had recovered. A composite DNAPL sample was collected for analysis. A 6-inch recovery well was installed in the lower sand at JF245-1, the point at which the most DNAPL was recovered. The recovery well has a 10-foot stainless steel screen and sump. Rounds of DNAPL recovery will take place via bailing with a Kemmer sampler. The first round will be two weeks after the well is installed. The timing of subsequent rounds will be based on the rate of DNAPL recovery.

Plume geospatial modeling utilized chemical data to identify free-phase DNAPL locations. The alternative remedial strategy of the 2001 ROD specifies evaluation of a supplement added to the replacement well JF-51 in order to foster degradation of the isolated contaminants in the confined aquifer. The current corrective action plan for the confined aquifer is under review.

Mr. Henry inquired why the term “corrective action” was used in reference to the confined aquifer. Mr. Wrobel explained that, although the term is often associated with RCRA, it is a CERCLA term as well. A corrective action is required as an alternative remedial strategy when a TI takes place.

Mr. Kappler requested an explanation of the difference in the amount of DNAPL recovered from the two wells. Mr. Wrobel stated that the varied recovery might result from two different pools of DNAPL. Mr. McCaughey recounted that the current goal was not to recover as much DNAPL as possible, but to recover a sufficient amount in order to analyze the sample. He felt that neither well was the best location to recover the most DNAPL. Mr. Henry requested new copies of the graphics be mailed with the minutes.

Mr. Henry queried if the perimeter of the DNAPL concentration was known. Mr. McCaughey stated that due to extensive sampling in the area around the wells, he feels confident that the DNAPL locations have been delineated. Mr. Henry requested the DNAPL Well Location map be reproduced showing the concentration gradient.

Mr. Wrobel remarked that one gallon of source material was removed. With an estimated 30 gallons of material needing to be removed in total the pump speed may be increased to remove even more material.

Dr. Nasrin Begum (RAB Member) inquired if a constant speed was used during pumping. Mr. Wrobel replied that a constant speed is used but techniques using pulsed pumping will be evaluated.

Mr. Stachiw questioned if an estimate of the total volume of DNAPL had been completed. Mr. Wrobel replied that the site is five acres in size, and since the DNAPL does not mix with water, the source material is the only liquid being removed. Mr. Wrobel also remarked that the plume moves at a speed of approximately one foot per year.

The WPP were used between the late 1940's through 1990 for open burn/open detonation (OB/OD). Soil and groundwater sampling for the 1994 RI detected low levels of metals and semivolatiles in the soil, and trichloroethene (TCE) in the groundwater. Potential concern regarding past site uses resulted in the WPP being transferred into the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program for further investigation and remediation. Mr. Wrobel displayed several graphics depicting the proposed sediment, soil, pit borings, and sidewall sample locations. The draft proposed field sampling plan for each environmental media includes: 20 surface water samples; 108 groundwater samples; 90 soil samples; 250 soil boring samples; and 54 sediment samples.

Mr. Crabb inquired if the shoreline preservation is ongoing. Mr. Wrobel replied that the FS will address, as part of the remedy evaluation, for the need of further shoreline erosion protection. In the graphic depicting the soil grids, areas of shoreline erosion appear as gray areas.

Mr. Henry questioned if the grid numbers represent where samples were taken. Mr. Wrobel explained that the grid numbers outline areas of past activities and areas of stressed vegetation, targeted through a review of historical aerial photography. Samples will be collected beneath the surface soil within the grids and along the sidewalls between the grids. Mr. Henry expressed his concern over not receiving the aerial photography, stating them necessary to understand the sampling locations. Dr. Baier-Anderson requested copies of the J-Field work plan and LUCIP.

Mr. Kappler questioned if the active site near Robbins Point was a prepared site. Mr. Wrobel stated that the area was prepared. Mr. Kappler inquired what occurs at an active site. Mr. Wrobel recounted that an active site is a Resource Conservation and Recovery Act (RCRA) site where riot control, white phosphorus use, and the open detonation of UXO takes place. Mr. Kappler questioned if the site was prepared before use to prevent contaminants from reaching the groundwater. Mr. Andy Murphy (DSHE) replied that the site was prepared, but the potential need for enhanced groundwater protection is currently under discussion.

VI. CANAL CREEK STUDY AREA UPDATE

Mr. Wrobel provided an update on the East Branch Canal Creek (EBCC) study area. The groundwater treatment plant (GWTP) is designed so that effluent meets drinking water quality standards. The plant has the capacity to treat about 440,000 gallons of water per day. The plant draws water from eight extraction wells, located along the west-east axis of the contaminant plume. The long-term goal is to incorporate the GWTP effluent as part of the Edgewood Area drinking water system, instead of the current discharge into the EBCC.

Mr. Wrobel displayed a flow chart representing the Canal Creek GWTP configuration. The water flows from the groundwater extraction wells to the treatment plant. The first steps involve precipitation of metals, mostly iron. The precipitated metals, about 100 pounds per day, will be classified as non-hazardous waste, and sent off site for disposal. The remaining water flow will undergo VOC removal by

resin adsorption. The resin, called Ambersorb® is a uniform, fine-grained material. An advantage to the Ambersorb® is that it can be regenerated on site and cleaned by running steam through it. The vapor phase VOCs that are generated during the steam regeneration process then are run through a vapor phase granulated activated carbon (GAC) treatment; approximately 1.6 pounds of VOC are removed per day during this process. After this step, there are no VOC air emissions. The final step involves discharging the treated water into the EBCC at less than 0.4 pounds VOC per day. Mr. Wrobel displayed several photographs of the treatment plant.

Dr. Begum questioned if VOC monitoring is incorporated. Mr. Wrobel stated that as part of the operation and maintenance, samples will be taken of the effluent for VOC detection.

Mr. Wrobel recounted that through the Army's Sustainable Project Rating Tool (SPiRiT), the Canal Creek GWTP is eligible for gold certification. The GWTP's gold certification features include: environmental responsibility in construction; the adaptive re-use of an existing building incorporating in the sustainable design principles established by the Department of Defense (DOD) and the General Services Administration (GSA); and the demonstrated environmentally and fiscally responsible use of resources in design, construction, and operations. Mr. Wrobel anticipates a start date of April 7, 2003 for the GWTP.

VII. INTERMISSION

At 8:30 p.m., upon completion of the remarks, Mr. Stachiw announced a brief intermission. At 8:45 p.m., the meeting resumed, with a closed-door session to allow RAB Members to continue the discussion of Operations Security issues with Mr. Joe Kaffl.

IX. CLOSING REMARKS

At 10:45 pm, after confirming that no one present had further questions, Mr. Stachiw adjourned the meeting. The next APG IRP RAB Meeting will be held on Thursday, 24 April 2003 at 7:00 pm in the Edgewood Senior Center. The tentative topics for discussion are the Lauderick Creek CWM Removal Action, the conclusion of the Canal Creek Study Area Update, the Explosive Destruction System (EDS), and a continuation of the OPSEC discussion.